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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENNING GERDER, ANDREAS KRAUSE, and GOTZ KULLIK

Appeal 2009-002642¹
Application 10/737,202
Technology Center 3700

Decided: August 11, 2009

Before LORA M. GREEN, FRANCISCO C. PRATS, and
STEPHEN WALSH, *Administrative Patent Judges*.

WALSH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) involving claims to a breathing gas tube. The Patent Examiner rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

¹ Heard Aug. 4, 2009.

STATEMENT OF THE CASE

The invention concerns respirator breathing gas tubes. (Spec. ¶ 7.) The Specification states that on prior art breathing gas tubes equipped with a sensor and signal line, connections were made with electric patch plugs. (*Id.* at ¶5.) The invention is said to improve on the prior art by providing a contactless interface for making the connections. (*Id.* at ¶ 8.) Claims 1-21, which are all the pending claims, are on appeal. Claim 1 is representative and reads as follows:

1. A respirator breathing gas tube for supplying a user with breathing gas, the breathing tube, comprising:
 - a sensor means at an end of the breathing gas tube facing away from the respirator;
 - a signal line extending along the breathing gas tube and designed to transmit signals of the sensor means to the respirator;
 - a contactless interface between the signal line and the sensor means.

The Examiner rejected claims 1-21 under 35 U.S.C. § 103(a) as unpatentable over Bahr² in view of Applicant's Admission of Prior Art in Remarks filed Nov. 21, 2006, page 7, line 9 – page 11, line 1 [“Remarks”].

OBVIOUSNESS

The Issue

The Examiner found that Bahr disclosed a breathing gas tube differing from Appellants' tube in only one respect: Bahr's tube had a contact-type interface rather than a contactless-type interface. (Ans. 3.) According to the Examiner, Appellants admitted that contactless interfaces were “well known

² Patent Application Publication No. US 2001/0017134 A1, by Pontus Von Bahr, published Aug. 30, 2001.

in the electrical engineering arts.” (*Id.* at 3-4.) The Examiner concluded it would have been obvious to substitute a contactless interface for Bahr’s contact interface “wherein so doing would amount to the mere substitution of one type of signal interface for another that would work or function equally as well . . . in the Bahr device.” (*Id.* at 4.)

Appellants contend that while “contactless interfaces are well known in the electrical engineering arts[, i]t has not been shown that a person of ordinary skill in the pertinent art of Bahr would be familiar with the electrical engineering arts.” (App. Br. 10.) According to Appellants, “it is unreasonable to believe that an average respirator designer would have knowledge of all types of different electrical connections that could be used between a breathing tube and a sensor.” (*Id.* at 11.) Appellants further contend that “[i]t is only the present [A]pplicant . . . who has discovered that the contact interfaces of the breathing tubes and sensors have disadvantages which limit the useful life of the breathing tubes and corresponding sensors. Furthermore, it is only the present [A]pplicant who provides a solution to the discovered problem of contact interfaces in breathing tubes.” (*Id.* at 15.)

The issues with respect to this rejection are:

Did the Examiner show that Bahr disclosed a problem with contact interfaces? and;

Did the Examiner show that respirator tube makers were aware that a contactless interface could have been used in Bahr’s device?

Findings of Fact

1. Bahr disclosed a respiratory device comprising a breathing gas tube 4, a cable 14, and electrical contacts 12a, 12b, 18a and 18b. (Bahr, ¶ 19.)
2. Bahr's gas tube had a sensor 28. (*Id. at* ¶ 20.)
3. Bahr disclosed that "one or more transmission lines may be optical fibers or acoustic waveguides." (*Id. at* ¶ 27.)
4. The record includes Appellants' statement that "an inductive interface is well known in the field of electrical engineering." (Remarks at 7.)
5. The record includes Appellants' statement that "inductive interfaces or couplings are sufficiently well known to a person of ordinary skill in the art of electrical engineering, so that this person of ordinary skill would be able to use an inductive interface based on the description provided in the [S]pecification." (Remarks at 9.)

Principles of Law

A rejection for obviousness must include "articulated reasoning with some rational underpinning to support the legal conclusion." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007), quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The proper question to ask is whether a person of ordinary skill in the art, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to combining the prior art teachings. *KSR*, 550 U.S. at 424; *see also In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004) (the desirability of the

combination may arise from nature of the problem, teachings of references, or the ordinary knowledge of those skilled in the art).

“[A] combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. . . . [I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person’s skill.” *KSR*, 550 U.S. at 401.

Analysis

The Examiner found that substituting a contactless interface for Bahr’s contact-type interface would have been obvious because it was merely a substitution with predictable results. (Ans. 4.) There are at least three important considerations missing from the explanation of obviousness. First, there is no evidence that a person of ordinary skill in the art at the time of the invention would have been aware of a reason to make any change.

See KSR, 550 U.S. at 424; *Fulton*, 391 F.3d at 1200. Second, although a combination of familiar elements yielding predictable results is likely to be obvious, see *KSR*, 550 U.S. at 401, an important qualifier in the Court’s statement is “familiar.” The Examiner does not point to evidence that a person of ordinary skill in the breathing tube art would have considered contactless interfaces “familiar elements.” Third, if something has improved one device, “and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way,” using the improvement would be obvious. *See KSR*, 550 U.S. at 401. An important qualifier in the Court’s statement is “similar devices.” The Examiner does not point to

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evidence that contactless interfaces were known to have been used for improving devices similar to gas breathing tubes.

We find that Appellants' Remarks did not "admit" the missing factors. Instead, Appellants admitted that an electrical engineer could fabricate a breathing gas tube with a contactless interface if given the instruction to do so. (FF5.) On this record, Appellants' Specification is the only source of that instruction. We conclude that a *prima facie* case of obviousness was not established.

CONCLUSIONS OF LAW

The Examiner did not show that Bahr disclosed a problem with contact interfaces; and

The Examiner did not show that respirator tube makers of ordinary skill were aware that a contactless interface could have been used in Bahr's device.

SUMMARY

We reverse the rejection of claims 1-21 under 35 U.S.C. § 103(a) as obvious over the Bahr in view of Applicant's Admission of Prior Art.

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REVERSED

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MCGLEW & TUTTLE, PC
P.O. BOX 9227
SCARBOROUGH STATION
SCARBOROUGH NY 10510-9227